

REMARKS

Claim 1 has been amended. Claims 1 and 3-9 are currently pending in this application. Applicants reserve the right to pursue the original and other claims in this and other applications. Applicants respectfully request reconsideration in light of the above amendments and the following remarks.

Claims 1 and 3-9 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. This rejection is respectfully traversed and reconsideration is respectfully requested.

With respect to claim 1, the claim has been amended to address the Examiner's concerns regarding the language "high" and "gradually." The term "gradually" has been removed from the claim. The term "high" has been clarified to indicate that the concentration is higher than in other regions of the middle section.

With respect to claim 8, Applicants note that PTFE, PFA, ETFE and PVDF are not trademarks, but are instead acronyms for the various chemical compounds. One skilled in the art would recognize that, for example, "PTFE" stands for "polytetrafluoroethylene."

Accordingly, Applicants respectfully submit that claims 1 and 3-9 are in compliance with 35 U.S.C. § 112, second paragraph. Applicants request that the rejection of these claims be withdrawn and the claims allowed.

Claims 1, 3-7 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Togawa (JP 06-272093) ("Togawa") in view of Nishimoto et al. (U.S. Patent No. 4,784,893) ("Nishimoto"). This rejection is respectfully traversed and reconsideration is respectfully requested.

Claim 1 recites, *inter alia*, that "a concentration of the heat insulating portion being higher in a region of the middle section directly below the uppermost section than in other

regions of the middle section and lowering toward the lowermost section such that only the metal material forming the middle section exists on the lowermost section.”

This claimed concentration gradient an important feature of the claimed invention. This concentration profile is provided “in order to simplify and perform more continuously a process of transporting a workpiece between different plating apparatuses and between different plating baths in a composite plating process.” Specification, pg. 37, line 16 – pg. 38, line 4.

Togawa, on the other hand, describes a purpose of “to simply and surely produce a *metallic heat insulating layer having excellent heat insulating function*, excellent in thermal shock resistance and free from the generation of blister or the like.” Togawa, Abstract (Purpose) (emphasis added). In Togawa, “after a metal plated film 2 is formed on the surface of a metallic base body 1 to form the heat insulating layer, a composite plated film 3 having a gradient function, in which *the dispersing quantity of ceramic particles is gradually increased from the metallic plated film side and after reaches maximum, gradually decreased*, is formed on the metal plated film by using a composite plating solution made by dispersing the ceramic particles in a metal plating solution. Next the metal plated film 4 is formed on the composite plated film.” Togawa, Abstract (Constitution) (emphasis added). As can be seen in FIG. 1 of Togawa, the concentration is highest at the central layer 3a of the composite plated film 3 (the alleged “middle section”). The concentration gradient disclosed in Togawa (being highest at the central portion) does not disclose, or render obvious, the claimed concentration profile (being highest at the region directly below the uppermost section).

Additionally, one skilled in the art would not be motivated to replace the ceramic particle gradient (in metal plating liquid) of Togawa with the ceramic particle gradient (in polymer) of Nishimoto, as asserted by the Examiner. In fact, the reason the highest concentration of particles in Togawa is in the middle is because the inventors of Togawa were solving the problem that increased ceramic particle concentration reduces the adhesion over the metallic base surface. See, Togawa, ¶[0006] (machine translation). Thus, one skilled in the art would not be motivated to use the gradient in claim 2 of Nishimoto (“high [concentration of

ceramic particles] in a portion of said insulating layer proximate to said metal substrate”) because Togawa teaches away from such a combination.

Accordingly, claim 1 is allowable over the cited combination. Claims 3-7 and 9 depend from claim 1 and are allowable along with claim 1. As such, Applicants respectfully request that the rejection of claims 1, 3-7 and 9 be withdrawn and the claims allowed.

Claims 1 and 3- 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Murata et al. (U.S. Patent No. 6,468,618) (“Murata”) in view of Togawa and further in view of Nishimoto. This rejection is respectfully traversed and reconsideration is respectfully requested.

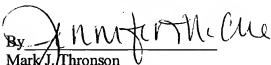
The Examiner relies on the combination of Togawa and Nishimoto as disclosing the insulating layer having the claimed concentration profile. For at least the reasons discussed above, the combination of Togawa and Nishimoto does not disclose “a concentration of the heat insulating portion being higher in a region of the middle section directly below the uppermost section than in other regions of the middle section and lowering toward the lowermost section such that only the metal material forming the middle section exists on the lowermost section.”

Accordingly, claim 1 is allowable over the cited combination. Claims 3-9 depend from claim 1 and are allowable along with claim 1. Applicants respectfully request that the rejection of claims 1 and 3-9 be withdrawn and the claims allowed.

In view of the above, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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